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ABSTRACT

The objective of this case study is to explore the influence of evaluators' beliefs on the diagnosis of language-minority children's cognitive-linguistic development. More specifically, the following five areas are explored: (1) evaluator's cultural and linguistic backgrounds; (2) their beliefs about language-minority children's cognitive-linguistic development and measurements; (3) diagnostic and placement behaviors; (4) ability to personalize questions by making explicit connections between beliefs held and personal backgrounds; and (5) level of awareness of the effect of personality factors on the diagnosis and placement of language-minority children. The major argument underlying findings in this study is that reaching a diagnostic conclusion requires the evaluator to go through an inferencing and interpretation process, especially when currently contradictory evidence is portrayed by qualitative and standardized measurements. Conclusions emphasize theoretical and applied educational implications of this case study for improving our current practices when assessing language-minority students. (Contains 19 references.) (Author)

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Influence of Evaluators' Prior Academic Knowledge and Beliefs on the Diagnosis of Cognitive and Language Development in Bilingual Hispanic Kindergartners

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Abstract

The objective of this case study is to explore the influence of evaluators' beliefs on the diagnosis of language-minority children's cognitive-linguistic development. More specifically the following five areas are explored, evaluators': (1) cultural and linguistic backgrounds, (2) beliefs about language-minority children's cognitive-linguistic development and measurements, (3) diagnostic and placement behaviors, (4) ability to personalize questions by making explicit connections between beliefs held and personal backgrounds, and (5) level of awareness of the effect of personality factors on the diagnosis and placement of language-minority children. The major argument underlying findings in this study is that reaching a diagnostic conclusion requires the evaluator to go through an inferencing and interpretation process, especially when currently contradictory evidence is portrayed by qualitative and standardized measurements. Conclusions emphasize theoretical and applied educational implications of this case study for improving our current practices when assessing language-minority students.

Influence of Evaluators' Prior Academic Knowledge and Beliefs on the Diagnosis of Cognitive and Language Development in Bilingual Hispanic Kindergartners

The objective of this case study is to explore a paradigm analyzing the relationship between the evaluator' s beliefs regarding cognitive-linguistic development and its measurement in bilingual Hispanic kindergartners, her personal backgrounds, and her diagnosis and placement decisions. More specifically, this paradigm explores the degree of explicit connection that was made by the evaluator among her beliefs, personal background, and behaviors that may have helped her to become aware of the influence of her personality on diagnostic and placement decisions for language-minority children. This evaluator was one out of ten subjects who volunteered to participate in this study. For this preliminary study only one case has been selected for exploring the application of the paradigm developed in light of literature discussed below and data collected in this case study (see Figure 1).

Since the 1970's it has been acknowledged by several authors (e.g., Cummins, 1981; De Avila & Havassy, 1974; Erickson, 1981; Oller, 1983) that standardized tests lack validity and reliability when used with language-minority children because of inappropriate norms and stimuli. For instance, among the most common problems are literal translations of standardized tests in English and dialectal variations in the non-English language resulting in difficulties for conducting a dual language assessment. Thus, the assessment of language-minority children is a difficult endeavor because evaluators need to use multiple measurements coming from different assessment models for overcoming the limitations of invalid and unreliable standardized tests derived from the "medical" model. Then, evaluators need to be knowledgeable about theories explaining how children develop when surrounded by bilingual and bicultural milieus in order to interpret contradictory information gathered from instruments coming from different assessment models.

Broadly speaking presently there are three major assessment models and their corresponding measurements available for evaluators including: (1) the "medical" model that assumes that internal factors such as genetics and race are the causal factors explaining deviations from the norms when using standardized tests, (2) the behavioral model that assumes that external factors are the causal factors explaining psychoeducational behaviors such as learning and development, (3) the developmental model that assumes that both external and internal factors influence performance of individual children as measured by qualitative or performance-based assessments. For a more detailed review of these and other assessment models see Gonzalez and Yawkey (1993), and Gonzalez (1994). In this study, a new qualitative method related to the developmental assessment model that was developed by Gonzalez (1991) was used. The Qualitative Use of English and Spanish Tasks (QUEST, Gonzalez, 1991) was selected in order to give the evaluator a tool for discovering the triple-interaction of the influence of cognitive, cultural, and linguistic factors on conceptual and language development in bilingual children. QUEST includes five verbal and non-verbal classification tasks that use animal and food objects portraying the differences and similarities of the conceptual, symbolic, and linguistic representations of gender in Spanish and English. For a review of the construction of the model based on which QUEST was developed see Gonzalez (1991, 1994), and for the practical application of QUEST for identifying gifted bilingual Hispanic kindergartners see Gonzalez, Bauerle, and Félix-Holt (1994).

It is our argument that making a diagnosis decision requires the evaluator to go through an inferencing and interpretation process, especially when currently contradictory evidence is portrayed by standardized tests and qualitative methods coming from different assessment models. Thus, as pointed out by Gonzalez and Yawkey (1993) a "panacea," the valid and reliable instrument for assessing language-minority children does and cannot exist independently of the evaluator's personality. As has been argued in this paper, and as pointed out by Gonzalez in a position paper (1993), we believe that the

most important tool for assessment is the personality of evaluators including factors such as beliefs held, hypotheses stated, schools of thought and assessment models endorsed, and their personal backgrounds. Relatedly, Oller and Damico (1991) pointed out that examiners make practical decisions on how to assess and interpret students' behaviors based on their particular conceptualizations of constructs measured, and their hypotheses, expectations, and beliefs.

One important way in which the personality of evaluators makes assessment a subjective process has been stated by Roth (1988), "Observation has a dual nature and cannot exist outside that duality" (p. 128), and that "To examine a child is to examine a child being examined" (p. 125). That is, Roth (1988) considered that when assessing a child, the situation created by the evaluation process will in turn influence the child's behavior, and that the evaluator interprets the child's behaviors examined in relation to his own behaviors and belief systems. Another important way in which evaluators' personality factors influence assessment is when selecting measurements to be used because of the social and educational consequences of diagnostic and placements decisions made based on the interpretation of this information gathered. Several authors (e.g., Messick, 1989; Moss, 1992) have pointed out that construct validity is the most important psychometric property of standardized measurements because test interpretations and use have value implications and consequences of a social, educational, ethical, and moral nature. According to Moss (1992) construct validity also refers to the consequences of test use such as the justification of interpretations of behaviors and the evaluation of social values made by the evaluator. That is, criteria or standards based on which criterion or norm-referenced tests are constructed reflect ideologies, beliefs, and sociopolitical structures of socially constructed diagnostic categories. Banks and McGee Banks (1989) considered that standards and criteria are socially constructed and thus subjective and culturally loaded. Thus, rules and social norms embedded within the

cultural validity of assessments used for diagnosing and placing language-minority students are created by specific cultural and ethnic groups.

Furthermore, according to Washington and McLoyd (1982), measurements have also interpretative validity which is related to the intentionality of human actions and goal setting and achievement. These authors explained racism and stereotyping as the result of biased interpretations of the experience of being a minority individual by majority people. They pointed out that myths and distorted images that misrepresent the experience of being a minority within the mainstream American society are the result of partial interpretations. Explanations of minority issues and problems tend to take into consideration only internal factors focusing on the results of victimization, while ignoring external factors that caused the process of oppression and the meaning of being a minority. Thus, the personal background of the evaluator, such as identifying herself with a majority or a minority group, can have an effect on the assessment, diagnosis, and placement of language-minority children.

Application of the Paradigm to a Case Study

Subject

A white female graduate student, in her late 20's, majoring in school psychology at a large state university in the Southwest region of the U. S. who took a course on the assessment of minorities was invited to volunteer to participate in this study. She was one out of ten subjects who volunteered to participate in this study. For this preliminary study only one case has been selected for exploring the application of the paradigm developed. A pseudonym, Julie, will be used for protecting the identity of the subject selected as a case study.

Instruments

Qualitative Use of English and Spanish Tasks (QUEST). The evaluator assessed in English a Hispanic bilingual kindergartner from a low socioeconomic background using QUEST (Gonzalez, 1991) that includes three verbal tasks (i.e., labeling, definition,

justification of sorting), and two non-verbal tasks (i.e., sorting and category clue). These classification tasks were designed to assess bilingual children's general and linguistic gender conceptual processes for two different abstract, symbolic and linguistic semantic categories represented by animals (animate) and food (inanimate) objects. Stimuli used for the five classification tasks were plastic full-color objects representing 14 groupings reflecting the interaction of cognitive, cultural, and linguistic factors.

QUEST tasks were derived from a model developed by Gonzalez (1991, 1994) explaining concept formation in bilingual children and identifying two knowledge representational systems including cognitive, linguistic, and cultural factors. The first conceptual representational system is abstract, universal, and non-verbal; and the second one is semantic, verbal, and culturally-linguistically bound. The model based on which QUEST was developed was found to have construct validity as shown by parametric and non-parametric tests (Gonzalez, 1991). Moreover, stimuli groupings were validated using judges for assuring construct validity and three pilot tests were conducted for assuring content validity (Gonzalez, 1991, 1994). In addition, internal validity and reliability of the classification tasks was demonstrated by using Pearson chi-square association tests, which indicated that using two different sets of stimuli was not associated with the developmental level at which bilingual children performed on verbal and non-verbal classification tasks (see Gonzalez, Bauerle, & Félix-Holt, 1995).

Tasks will be described following the pre-established order of administration (for a more complete description of tasks see Gonzalez, 1991, 1994). For the labeling task, the child is presented plastic objects and asked to name them (What *do you call this?*), while giving her one item at a time, followed by the defining task at the production level in which the child is asked four different probes to elicit a description of the object(s) (*What is a __?* ; *What is a __ like?* , *Tell me something about a ___*, and *What does a ___ look like?*). After, for tapping the comprehension level of the defining task, the child is given a definition that points to verbal and non-verbal clues for class inclusion

categories of objects (taxonomic categories: superordinate, intermediate, and subcategories). This definition is repeated three times, and after the child is asked to define three different kinds of items. For the sorting task, the child is asked to group the objects by linguistic gender; followed by the verbal justification of sorting task in which the child is asked to explain the order imposed on the objects, and she is presented with metalinguistic counterexamples that change groupings and labels. Finally, for the category clue task, the child is provided with a model of how to group objects by linguistic gender using two pictures of identical dolls; and then she is asked to sort the objects following the model provided, to explain her groupings, and to answer metalinguistic counterexamples that change groupings and labels. Finally, broadly speaking the child's responses were categorized into five stages based partially on Piaget's theory (1965): (1) no classification (affective responses, juxtaposed groupings and graphic collections), (2) pre-conceptual: perceptual (extralinguistic features -color, size, shape, parts of objects), (3) pre-conceptual: functional (thematic relations), (4) concrete (taxonomic categories showing class-inclusion), and (5) metalinguistic (taxonomic semantic categories). In order to be diagnosed in any of these five developmental stages for any of the five verbal and non-verbal tasks, the child's responses needed to be at that level at least for three out of the eight items that were included in each task.

Interview. After the evaluation was completed, an open-ended interview was used for exploring the evaluator' s beliefs about language-minority children's development and instruments for its measurement, her personal background, and diagnostic and placement behaviors. The interview included 19 open-ended questions divided in four areas: (1) theories of intelligence and language development of language-minority children; (2) standardized tests and qualitative assessments for language-minority children; (3) personal background of the evaluator; and (4) diagnostic and placement behaviors related to the bilingual Hispanic child assessed using QUEST (Gonzalez, 1991), the complementary report on the same case administered in a different

language by different evaluators, and a control case presenting contradictory information on qualitative and standardized tests also conducted by independent evaluators. See Appendix A for the particular questions used in the interview.

Evaluation reports. In order to provide contextual information for analyzing this case study the most important features of the three evaluation reports used as instruments in this study will be included. Firstly, a summary of the report of the child assessed in English by the subject will be described, followed by a summary of the report of the same child assessed in Spanish by different evaluators. Finally, a summary of the different measurements presented in the control case will also be included.

The first case, the child assessed by the evaluator acting as the subject for this case study, was a female kindergartner who was 6 years and 0 months by the time of the assessment, whose first language was English and her second language was Spanish. This child will be called Carmen (a pseudonym is used to protect the identity of the child). The evaluator reported that Carmen was cooperative, attentive, and friendly; and that she seemed to have no difficulty in understanding the instructions used for administering QUEST neither for expressing herself in English. Carmen formed concepts in the verbal tasks of QUEST administered in English at the concrete level, and at the metalinguistic level in the non-verbal tasks. Thus, Carmen performed beyond age expectations on both verbal and nonverbal tasks of QUEST. She could form categories and subcategories showing flexibility of thinking by pointing to similarities and differences across classes of objects.

The second report presented to the subject was conducted by two independent evaluators, who were graduate students of educational psychology taking the same course of testing of minorities with the subject for this case study. These two individuals assessed Carmen in Spanish using QUEST within a week after the English administration had been conducted. One of these examiners was fully bilingual and had Spanish as her first language, and the other one had Spanish as her foreign language with an

intermediate command of Spanish. The fully bilingual examiner was the one who interacted with the child, and the other examiner acted as an observer helping in writing down the child's responses to the tasks. These two evaluators reported that Carmen engaged easily in the tasks of QUEST, cooperated in a friendly manner, and that she could understand instructions given to her in Spanish even though her speaking skills were low. Carmen's performance was consistently above expectations for her chronological age, as she reached the metalinguistic level in both verbal and non-verbal tasks of QUEST. Carmen could use her prior experiences in her high level responses to the tasks as she could classify objects according to multiple simultaneous criteria (e.g., size, color, and kinship -fruits and vegetables). Thus, Carmen demonstrated flexibility of thinking and social awareness that labels for objects were just social conventions and that by changing the label its actual and embedded properties would remain the same (i.e., metalinguistic awareness). The recommendation given by these two independent evaluators was to place Carmen in a gifted bilingual classroom the following academic year because she had the cognitive and linguistic potential.

The third report consisted of a control case selected because it contained contradictory information produced by standardized and qualitative measures of cognitive and linguistic abilities. The child selected for this control case was a 5 years and 10 month old boy, who was fluent in English and could understand, but not speak, Spanish. David (a pseudonym is used to protect the identity of the child, see Gonzalez, Bauerle, & Félix-Holt, 1994 for a further review of this case study) was a third generation Mexican-American who has the youngest of 5 siblings, and whose parents and siblings used both Spanish and English at home. David parents' and his teacher's descriptions of his talents and abilities in social and language areas reported in a written survey were also provided in the control case. David's parents described him as highly verbal and social, and as a creative leader who used language humorously. David's teacher described him also as a highly verbal and social child, who also excelled in artistic and mathematic abilities.

David's teacher reported that he outperformed his peers in logical mathematical operations; and that he was a very competitive leader among peers. Standardized testing was also administered to David by personnel of the school district. When given the Language Assessment Scales (De Avila & Duncan, 1986), David was categorized as a fluent English speaker (level 4) and as a non-speaker of Spanish (level 1). When given the Ravens Color Matrices (Ravens, 1976), David performed at the 79 Percentile, Stanine 7; which was not leading towards a giftedness category.

This control case, David, was assessed in Spanish with QUEST by the same two independent evaluators assessing Carmen in Spanish. When administered QUEST in Spanish, David understood the instructions given by the examiner, but responded primarily in English using only few words in Spanish for code mixing. Examiners reported that David was very cooperative and friendly, using primarily non-verbal gestures for conveying different symbolic meanings showing flexibility of thinking. David performed at the concrete level for non-verbal tasks and at the metalinguistic level for verbal tasks as he was aware of verbal subcategories, different classifications of animal families, arbitrary social conventions for linguistic gender assignments for animate and inanimate objects, and the change of meaning reflected by a change of the linguistic gender of labels in Spanish. In addition, David was assessed in English with QUEST by other two evaluators who were also graduate students taking the same testing of minorities course with the subject for this case study, and who were fluent English speakers and did not speak Spanish. When David was administered QUEST in English, he was very cooperative, enthusiastic, friendly, and talkative. He focused his attention throughout the evaluation process and he elaborated on all his answers by making connections with his personal experiences. David performed in verbal and non-verbal tasks above the expectations for his chronological age reaching the concrete level. David's performance showed many creative comparisons of objects using shape, color,

and size in imaginative unique ways. His highest level of potential was shown in verbal definitions of objects and the use of his own real-life experiences.

Procedure

Students taking the selected graduate course in testing of language-minority children were invited to participate voluntarily in assessing a bilingual Hispanic kindergartner and to be interviewed. The two children presented in the evaluation reports, Carmen and David, were attending an elementary school located in a Hispanic low socioeconomic neighborhood in the Southwest region of the U.S. The subject selected for this case study was interviewed for approximately 45 minutes. The interview was conducted four months and a half after the assessment of David had been completed. The interview questions were available in writing to the subject prior to the interview session. The subject was familiar with the control case, as it had been presented in a study group that this graduate student was part of, approximately four months before the interview was conducted. The interview was audio taped and later transcribed for assuring reliability in the data analysis.

Data Analysis Design

This is a descriptive study that uses a case for exploring the application of a paradigm for explaining the effect of beliefs and personal background on diagnostic and placement decisions made by evaluators for language-minority children. We examined responses to the interview audio taped and transcribed for exploring the paradigm based on nominal categories developed by letting "the data speak to us." Qualitative analysis of the subject' s responses to the interview included three areas of nominal categories: (1) the evaluator's cultural and linguistic personal background, (2) the evaluator' s beliefs about cognitive-linguistic development and measurements, and (3) the evaluator' s diagnostic and placement behaviors. In addition two other nominal categories were created for synthesizing the interaction of the previous three categories, including, the evaluator's: (4) ability to personalize questions by making explicit connections between

her beliefs and personal background, and (5) awareness level of the effect on her personality on the diagnosis and placement of language-minority children. See Appendix B for a more specific list of nominal categories. Two judges (the first and second authors) categorized independently the transcribed responses of this case study across all nominal categories. A high reliability across judges ($r = .86$) was established, assuring that the operationalization and understanding of the nominal categories was consistent and clear across judges. In addition, quotes and its coding from the case study analyzed are included for illustrating data analysis, interpretation, and integration. Moreover, quotes are also included for illustrating common beliefs, assumptions, misconceptions, and "myths" held by graduate school psychology students concerning the development of intelligence and language and its measurement in language-minority children. Thus, these nominal categories were used for the insightful interpretation of this case study and for the development of the paradigm for increasing our understanding of the complex influence of personality factors on the assessment of language-minority children.

First Nominal Category: Cultural and Linguistic Personal Background

Julie considered that she had an intermediate proficiency level in the Spanish language, but that she was not bilingual or bicultural (1) a) Knowledge of another language). Julie has had brief contact with other cultures by traveling to Central America, experience which she explained had helped her to develop empathy and sensitivity for other cultures, "...I think just being around people and being pretty open to situations and people, I think is a benefit of mine, a positive asset, a positive characteristic that I don't prejudge..." (8) Empathy and cultural sensitivity). Julie also reported to have some experience assessing low socioeconomic and special education students.

Second Nominal Category: Evaluators' Beliefs About Cognitive and Linguistic Development and Measurements

Julie considered that language-minority children did not perform well on standardized tests because "...They haven't had all the opportunities or experiences as

what is needed to perform adequately on those tests" (I) Development, 1) Purpose, objectives, and uses of assessment, a) socially constructed value systems). Julie also considered that low performance of language-minority children on standardized tests "...Doesn't mean that they don't have other assets... or that they can't achieve them ... if it's value" (I) Development, 1) Purpose, objectives, and uses of assessment, a) socially constructed value systems). Julie also considered that her contact with other cultures had helped her to understand individual differences. She stated, "Being in different environments has helped me to understand that no two individuals are the same, that every individual is coming with different experiences (I) Development, 1) Purpose, objectives, and uses of assessments b) Individual/family factors). Julie also expressed the need to respect family values when placing language-minority children in regular or bilingual classrooms. She stated, "I assume that may be you got to be bilingual or at least have parent support to place you in a bilingual classroom, learning both language has to be valued in at least the child's family " (I) Development, 1) Purpose, objectives, and uses of assessments b) Individual/family factors).

Julie considered that both nature and nurture contributed to the development of intelligence and language. She stated, "I believe intelligence is composed of two different parts, your environment and biological boundaries" (I) Development, 2) Personal definitions of psychological constructs, a) Nature and nurture). Julie considered that "...Language development occurs through experience and predispositions set up in your genetics, the same as intelligence" (I) Development, 2) Personal definitions of psychological constructs, a) Nature and nurture). Julie also recognized the relationship between culture and intelligence, she stated "...Part of how your intelligence develops is what's around in your environment, so your culture is part of your environment" (I) Development, 2) Personal definitions of psychological constructs, b) Intelligence and culture). Julie also recognized that, "...Cultures value different aspects of intelligence..." (I) Development, 2) Personal definitions of psychological constructs, b) Intelligence and

culture). Julie also considered that culture influenced the development of intelligence and learning. She stated, "... I know that there are different theories of what intelligence is, and I haven't really made up my mind as to what components to really look at, but the general intelligence of language-minority children is there, they are very capable but what you learn in school, the specifics, may be slow to develop" (I) Development, 2) Personal definitions of psychological constructs, b) Intelligence and culture).

Julie considered that language and intelligence development interact, as she stated, "...I think intelligence helps language development in minorities and in general in any person..." (I) Development, 2) Personal definitions of psychological constructs, c) Interaction between cognition and language). Julie considered that if language-minority children were placed in a monolingual English classroom that environment "... Might interfere with minority language learning..." (I) Development, 2) Personal definitions of psychological constructs, c) Interaction between cognition and language). Julie also considered that her assessment experiences with QUEST and ..."Just working one-on-one with these kids brought out certain points in assessing language-minority children for me that may be I was aware of before, ...but it made me realize that language, the ability to express, plays a big role in assessing..." (I) Development, 2) Personal definitions of psychological constructs, c) Interaction between cognition and language). Julie also considered that children's language proficiency levels influenced their scores on intelligence tests. Moreover, regarding similarities between minority and majority children, Julie stated, "...Intelligence develops in language-minority children, the same way it develops in all children..." (I) Development, 3) Similarities and differences between majority and minority students). She also stated, "...I don't think there is anything different between language development in minorities as of language development in any person..." (I) Development, 3) Similarities and differences between majority and minority students).

Regarding psychometric characteristics of measurements Julie considered that current standardized tests are not appropriate for language-minority children because ".. They are normed on majority middle class children..." (II) Measurements, 1) Norms). Julie also stated, "...You've got to use standardized tests on the population that they' ve been normed" (II) Measurements, 1) Norms). Julie also recognized that tests reflect attitudes and that evaluators needed training. In addition, she considered that multiple assessments were needed for accurately diagnosing a child, and that qualitative assessments were more valid when used with language-minority children because "...The child can express himself, you can get at things beyond what's just their IQ scores in the standardized type of tasks" (II) Measurements, 4) Validity and reliability). However, Julie also pointed out that qualitative measurements could also "...Be misused or not valid" and she considered that "...Maybe the combination of qualitative and quantitative measures is good" (II) Measurements, 6) Qualitative and quantitative measures).

Third Nominal Category: Evaluators' Diagnostic and Placement Behaviors

After reading the English evaluation report of Carmen that she had assessed, Julie stated, "...May be I should have stick more with facts, in what I could see, instead of what I interpret" (1) Objective and subjective processed used for evaluation). In relation to the placement of the case that Julie evaluated, she explained, "..The fact that non-verbally he was on the concrete stage makes me believe that possibly there was more than what's being tapped in verbal ideas, that he might have the potential since classrooms are so verbal" (5) Placement of case evaluated, f) other). But she could not decide where Carmen should be placed. After reading the Spanish evaluation report of Carmen, Julie stated, "They seem to support each other" (3) Dual language performance), "...She seemed to be more competent in Spanish,...and as I was considering that she was more capable but that she might not have had the English skills to express herself. It strongly supports what I was saying about her non-verbal skills, but I couldn't tap into it because of the child's English language deficiencies..." (6) f) Placement after reading the second

evaluation of the same case). Even after reading the second evaluation, Julie was unsure of what would be the appropriate placement for Carmen because she was not familiar with gifted educational programs. But Julie wanted to give more opportunities to the child to be further evaluated as Julie could see some potential in the child but she could not pinpoint the specific diagnosis. After reading the control case, Julie stated, "...I would place her in one of two gifted classrooms, regular gifted or bilingual gifted...she doesn't seem to be a bilingual child, but I think she has the capabilities to learn Spanish,...but I would need to find out if being bilingual is valued by the child's parents" (7) b) and c) Placement of control case).

Fourth Nominal Category: Evaluators' Ability to Personalize Questions by Making Explicit Connections Between their Beliefs Held and their Personal Background

It can be observed in Julie's responses that she was able to explicitly relate her personal linguistic and cultural background with her beliefs and assessment behaviors with language-minority children. It may be, as she explains, that her opportunity to have contact with other cultures and languages helped her to gain sensitivity and awareness of individual and cultural/linguistic differences. It may be also, that the opportunity to assess a language-minority child helped Julie, as she pointed out, to gain awareness of the use of language as a major tool by evaluators for assessing cognitive development in children. Moreover, Julie's ability to personalize questions by making explicit connections between her personal background and academic knowledge help her to identify reasons for her inability to reach diagnostic decisions for Carmen, the bilingual child that she had evaluated only in English. Because Julie was aware that language influenced cognitive development, Julie explicitly pointed out that her lack of Spanish proficiency was preventing her from observing Carmen's cognitive performance across linguistic systems. After presented with the evidence, the Spanish evaluation report of Carmen, and knowing that the child consistently performed at the highest conceptual developmental level, metalinguistic, well beyond expectations for her age, Julie was

ready to recommend gifted placement. However, still Julie could not decide whether a bilingual or regular classroom would be needed, given that she could not evaluate Carmen in both languages. Thus, Julie's personal background led her to have specific beliefs about how bilingual children develop their cognition and language which make her aware of her own limitations.

Fifth Nominal Category: Evaluators' Awareness Level of the Effect of their Personality on the Diagnosis and Placement of Language-Minority Children

Because Julie could personalize the interview questions, she was aware of the influence of her own personality factors, such as her cultural and linguistic background, on her diagnostic and placement decisions with language-minority children. At the behavioral level, we can observe that she had difficulty making placement decisions and she explained it as lack of familiarity with gifted educational programs and lack of sufficient knowledge of the Spanish language. In addition, Julie also explained that having evaluated the child only in English and being uncertain of the genuine potential of the child due to the child's lack of English proficiency (and Julie's lack of Spanish proficiency), further complicated the case and make her unable to reach a placement decision. Julie also acknowledged the existence of different theoretical explanations for how language-minority children develop cognitively and linguistically. She considered that culture and language influenced intelligence, and that in turn social values influenced the development of different theoretical explanations of development. Moreover, she was aware of the differences in assumptions held by qualitative and quantitative assessment models and measurements, and its relationship with cultural values and learning. Thus, Julie was highly aware of the effect of the evaluator's personal background, beliefs, and knowledge levels on the assessment and diagnosis of language-minority children.

Conclusions

Presently, there is a theoretical and applied need in the fields of bilingual education, bilingual special education, and school psychology for developing alternative assessment methods based on scholarly research for language-minority children. This need is reflected in the adoption of new qualitative assessment methods for language-minority children by school districts across the nation. The major argument underlying findings in this study is that reaching a diagnostic conclusion requires the evaluator to go through an inferencing and interpretation process of a subjective nature, especially when currently contradictory evidence is portrayed by qualitative methods and standardized tests. Thus, personality factors of evaluators influence their beliefs about the theoretical constructs that they are measuring using instruments derived from different assessment models, resulting in possible contradictory diagnostic and placement decisions across evaluators with different personal and academic backgrounds.

Moreover, this study has applied educational implications for improving current higher educational models for students of school psychology, bilingual education, and bilingual special education. When educating new evaluators, instructors need to provide their students with opportunities for gaining awareness of their beliefs and for acquiring new theoretical and practical knowledge. By having direct contact with the difficult and challenging process of assessing and diagnosing language-minority children, students can explicitly connect their personal backgrounds, beliefs, and academic knowledge. This gain in awareness may lead students to improve their assessment practices with language-minority children. Most important applied educational implications related to how school psychologists are being trained in higher education institutions refer to the use of critical thinking strategies for stimulating future evaluators to gain awareness of the influence of their personalities, beliefs, and personal backgrounds, on the assessment process. They need to become knowledgeable about theories underlying constructs measured and instruments used, as well as they need to become sensitive to individual and sociocultural

differences present in language-minority children. That is, education does not need to focus only on the dissemination of "objective" information, but needs to focus on moral reasoning by giving students the opportunity to gain insight on the most important tool for assessment, their own personalities.

Regarding applied educational implications for improving current assessment practices with language-minority children, findings in this study highlight the need to switch our current focus on developing valid and reliable instrument to developing awareness in evaluators of the influence of their personalities on the assessment process. That is, accurate diagnostic and placement decisions for language-minority children can be made only if a knowledgeable advocate selects multiple measurements and interprets them using appropriate philosophical assumptions that take into account individual, linguistic, and cultural differences.

In summary, findings in this study can be expressed in the following phrase: "Tell me who you are and what you believe in for understanding the reason of your diagnostic decision." Thus, as this case study portrays, the most important tool for assessment is the personality of evaluators.

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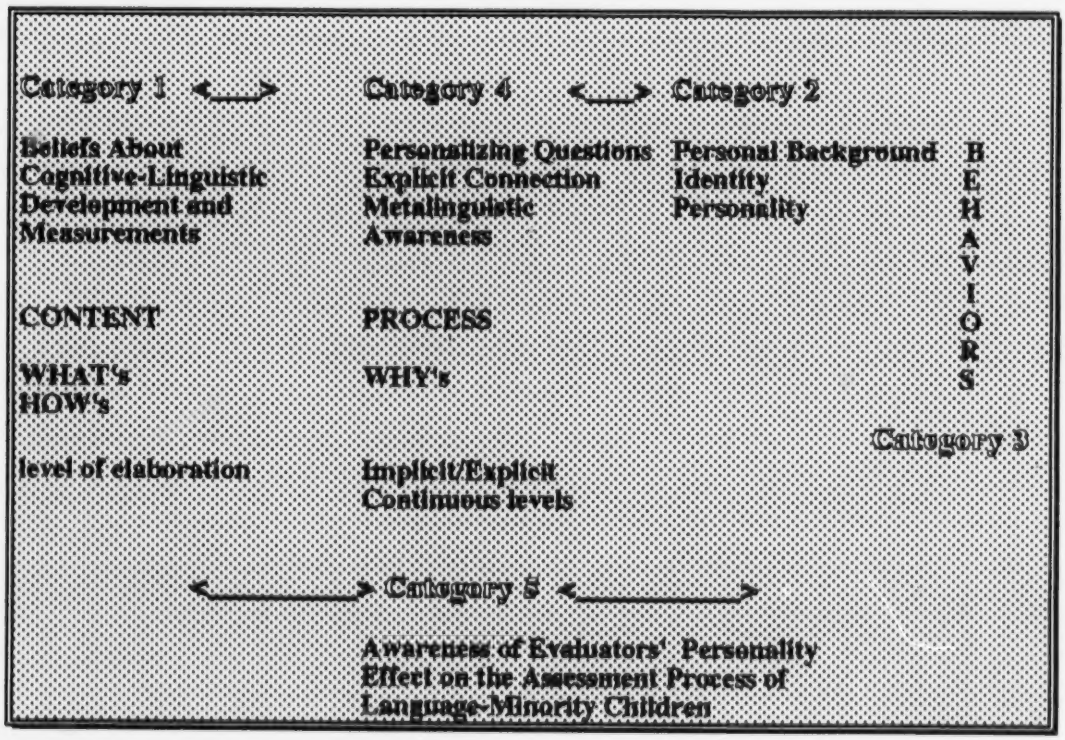
Figure 1. Paradigm for the Analysis of the Degree of Explicit Connection Made by Evaluators Among their Beliefs, Personal Background, and Behaviors for Gaining Awareness of the Influence of their Personality on Assessment



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Appendix A: Interview Questions

Area 1: Theories of intelligence and language development

1) According to out knowledge, how does intelligence develop in language-minority children?
2) According to your knowledge, how does language develop in language-minority children?
3) According to your view, what is the role that culture plays in the development of intelligence?
4) According to your view, what is the role that culture plays in the development of intelligence?
5) Is language development similar or different in majority and language-minority children?
6) Is the development of intelligence similar or different in majority and language-minority children?

Area 2: Standardized tests and qualitative assessments

7) What are your views about assessing language-minority children?
8) What are your views about standardized assessments?
9)What are your views about qualitative assessments?
10) In what ways did your experience of administering Dr. Gonzalez's assessment procedure influence your views about the assessment of language-minority children?

Area 3: Personal background

11) Are you bilingual and/or bicultural?
12)How do you think your personal characteristics influenced your assessment of the child?
13) What past experience(s) have you had in assessing language-minority children?

Area 4: Behaviors Related to the Bilingual Hispanic Child Assessed Using QUEST (Gonzalez, 1991), the Complementary Report on the Same Case in a Different Language, and a Control Case.

14) What changes in the observations section would you have made?
15) What changes in the diagnostic section would you have made?
16) Would you have recommended this child to be placed in the Gifted and Talented Education (GATE) program?
17) In what ways, does reading the report of the additional evaluation of the same child affect your views about the assessment procedure itself?
18) In what ways, does reading the report of the additional evaluation of the same child affect your recommendation for placing this child?
19) What placement would you recommend for this particular child (control case) for the next academic school year?

Appendix B: Nominal Categories Used for Analyzing
Evaluator' s Responses to Interview

Category 1: Beliefs Towards Cognitive-Linguistic Development and Measurements

I) Development

1) Purpose, objectives, and use of assessments
   a) socially constructed value systems (i.e., psychological, educational, school systems)
   b) Individual/family (i.e., cognitive-linguistic, sociocultural-SES-, and emotional/affective)

2) Personal definitions of psychological constructs
   a) Nature and nurture
   b) Intelligence and culture
   c) Interaction between cognition and language
   d) Similarities and differences between minority and majority students

II) Measurements

1) Norms
2) Test reflect attitudes of researchers, test developers, and evaluators
3) Multiple measurements (e.g., across contexts, different informants, and different assessment models)
4) Validity and reliability
5) Ameliorating problems in assessing language-minority students
6) Qualitative and quantitative instruments

Category 2: Personal Background

1) Knowledge of another language
   a) monolingual
   b) intermediate
   c) bilingual
2) Contact with another culture
   a) extended
   b) brief (traveling)
   c) none
3) Experience in assessing majority students
4) Experience in assessing minority students
5) Experience in assessing special education students
6) Academic coursework related to assessment and multiculturalism
7) Ethnic/cultural identification

Category 4: Behaviors

1) Objective and subjective processes used for evaluation
2) Verbal and non-verbal behaviors
3) Dual language performance
4) Qualitative and quantitative data used for evaluation
5) Placement of case evaluated
   a) gifted
   b) bilingual gifted
   c) regular gifted
   d) regular bilingual
   e) regular mainstream
   f) other

6) Placement after reading other language evaluation of case assessed
   a) gifted
   b) bilingual gifted
   c) regular gifted
   d) regular bilingual
   e) regular mainstream
   f) other
7) Placement of control case
   a) gifted
   b) bilingual gifted
   c) regular gifted
   d) regular bilingual
   e) regular mainstream
   f) other

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